IN THE CLAIMS

Please amend the claims as follows:

1.-79. (Cancelled)

80.   (New) An RFID reader adapted to communicate with RFID tags, comprising:

an interface to receive an input at the RFID reader indicating at least one of a plurality of

conditions pertaining to an environment of the reader, the conditions being one of a number of

RFID tags in the environment, a number of other readers operating in the environment, and

whether another reader operates at a frequency in a similar channel as the reader;

a controller to select one of a plurality of modulation formats based on the input; and

an antenna for communicating with the tags according to the selected format.

81.   (New) The RFID reader of claim 80, in which

a different one of the modulation formats is selected depending on whether or not the

number of tags in the environment exceeds a threshold.

82.   (New) The RFID reader of claim 80, in which

a different one of the modulation formats is selected depending on whether or not the

number of readers in the environment exceeds a threshold.

83.   (New) The RFID reader of claim 80, in which

a different one of the modulation formats is selected depending on whether or not another

reader has a frequency in a similar channel as the reader.

84.   (New) The RFID reader of claim 80, in which

the selected modulation format corresponds to selecting at least one of a group of

configuration parameters for the reader including a bit rate, cycles per symbol, subcarrier

frequency, symbol assignment, and backscatter duration.

85.   (New) The RFID reader of claim 80, further comprising:

a demodulator, and

wherein the controller is adapted to configure the demodulator to demodulate a signal

that is backscattered from at least one of the tags according to the selected format.

86.   (New) The RFID reader of claim 80, in which

the antenna is adapted to transmit to the tags a signal for configuring the tags to

backscatter by modulating according to the selected format.

87.   (New) The RFID reader of claim 80, in which

configuring the tags includes causing the tags to select at least one of a group of

configuration parameters including a bit rate, cycles per symbol, subcarrier frequency, symbol

assignment, and backscatter duration.

88.   (New) The RFID reader of claim 80, in which

the plurality of modulation formats includes at least one of a FMØ, a Manchester, a pulse

width modulation (PWM), a frequency shift key (FSK), an amplitude shift key (ASK), and a

phase shift key (PSK) modulation format.

89.   (New) The RFID reader of claim 80, in which

the interface is a user interface, and

the input is manually provided to the RFID reader by a user.

90.   (New) The RFID reader of claim 80, in which

the interface is a network interface to a further computer system, and

the input is received via a network from the further computer system.

91.   (New) A method for an RFID reader to communicate with a plurality of RFID tags

comprising:

receiving an input indicating at least one of a plurality of conditions pertaining to an environment of the reader, the conditions being one of a number of the RFID tags in the environment, a number of other readers operating in the environment, and whether another reader operates at a frequency in a similar channel as the reader;

selecting one of a plurality of modulation formats responsive to the input; and

communicating with the tags using the selected modulation format.

92.   (New) The method of claim 91, in which

a different one of the modulation formats is selected depending on whether or not the number of tags in the environment exceeds a threshold.

93.   (New) The method of claim 91, in which

a different one of the modulation formats is selected depending on whether or not the number of readers in the environment exceeds a threshold.

94.   (New) The method of claim 91, in which

a different one of the modulation formats is selected depending on whether or not another reader has a frequency in a similar channel as the reader.

95.   (New) The method of claim 91, in which

the selected modulation format corresponds to selecting at least one of a group of configuration parameters for the reader including a bit rate, cycles per symbol, subcarrier frequency, symbol assignment, and backscatter duration.

96.   (New) The method of claim 91, further comprising:

configuring a demodulator of the reader to demodulate a signal that is backscattered from at least one of the tags according to the selected format.

97.   (New) The method of claim 91, further comprising:

configuring the tags to backscatter using the selected modulation format.

98.   (New) The method of claim 97, in which

configuring the tags includes causing the tags to select at least one of a group of

configuration parameters including a bit rate, cycles per symbol, subcarrier frequency, symbol

assignment, and backscatter duration.

99.   (New) The method of claim 91, in which

the plurality of modulation formats includes at least one of a FMØ, a Manchester, a pulse

width modulation (PWM), a frequency shift key (FSK), an amplitude shift key (ASK), and a

phase shift key (PSK) modulation format.

100.   (New) The method of claim 91, in which

the input is manually inputted by a user in a user interface, and received via the interface.

101.   (New) The method of claim 91, in which

the input is inputted by a computer system in a network interface, and received via the

interface.